Maimonides and Leibniz

LENN E. GOODMAN
DEPARTMENT OF PHILOSOPHY
UNIVERSITY OF HAWAII, HONOLULU

> "To the trained observer the simplest thing in nature has a structure and a history . . ." H. A. Wolfson

What did Leibniz know of Maimonides? and What impact did that knowledge have on the unfolding of Leibniz' philosophy? It may not seem amiss to ask these questions when it is possible to confront the raised eyebrow which often greets the raising of such issues with Leibniz' reading notes on *The Guide to the Perplexed*, printed here in English translation from Leibniz' Latin and accessible in print in Latin and French since 1861. Given data of this kind, it is possible to compare what Leibniz thought and learned in reading the *Guide* with the ideas of his mature philosophy and so assess the impact of Maimonides on Leibniz. Rarely until the advent of such documentary methods as those of Schilpp and the exchanges and commentaries of the contemporary journals do we acquire such privileged access to the philosopher's conceptual workspace.

The impact of Maimonides on Leibniz is revealed to be threefold: (1) in relation to the theory of monads, (2) in regard to the problem of free will, (3) in regard to the matter of creation and the related issues of determinism and possible worlds.

It seems clear that it is from his reading of *The Guide to the Perplexed* that Leibniz first encounters a detailed exposition of the system of the *kalâm*. *Kalâm*, of course, is a many faceted phenomenon, and, as Maimonides states clearly, involves a great variety of divergent views. The system Maimonides presents is an abstract, generalized conspectus of the salient common points in the systems of diverse *mutakallimûn* or *loquentes*, as Buxtorf (following scholastic usage) calls them. The *mutakallimûn* become important to Maimonides because their metaphysical system enabled them to formulate a set of arguments in behalf of the createdness of the world which involved the notion that it is necessary for the world to be created and so provided a basis to their natural theology — a *demonstratio Dei* and a correlative conception of the nature or at least the act of God. From a critical inquiry into the strengths and weaknesses of the *kalâm* endeavour to place the Biblical/Qur'ânic creation idea on a conceptual, indeed demonstrable footing, Maimonides was convinced an answer could be found to the difficulties surrounding the idea of creation; and, thence, to those surrounding the more general problem of the nexus between God's transcendent infinitude and the finitude of immanent nature. To put this, as Maimonides did, in Talmudic terms: the pivotal element in approaching the problem of *maaseh merkavah* (theophany) was the problem of creation, *maaseh bereshit*. Or to put it in Aristotelian terms, the solution to the central problem of metaphysics hinged upon the approach taken to the central problem of physics. At the heart of the approach of the *mutakallimûn* to both problems was their rather radical idea of atomism.

Leibniz had toyed with atomism in various forms for several years before developing his distinctive theory of monads.[1] What did the atomism of the *kalâm* and the related theories of creation and possibility afford that could prove of use to him and how did Maimonides' refutation of *kalâm* atomism assist in wooing Leibniz' alegiance back towards "Aristotle," *i.e.* towards the continuity of matter and ultimately the theory of monads? The tenor of Leibniz' interest is evident in his early efforts to supplement the atomism of Democritus and Gassendi by raising the question, 'What causes the cohesion of one atom to the next and yet prevents the merging of two absolutely solid masses with one another if cohesion is the result of immediate contact?' Such an effect, Leibniz reasoned, could not be ascribed to the solid nature of the atomic masses but seemed attributable only to the action of God.[2] From an early stage Leibniz was seeking to undermine the Democritean idea of the self-sufficiency, absoluteness and ultimacy in being and explanation of the atoms as material particles and show the need for their dependency, or at least the dependency of the systems they formed, upon God. The atoms of the *kalâm*, unlike those of Democritus, were not self-sufficient beings; each severally, as well as the systems they formed, was dependent on the act of God for its character and existence.

The atomism of the *kalâm* was distinctive in that the atoms of the *kalâm*, called substances or discrete or isolated substances, had no magnitude. This was true not only spatially but temporally; they had no extended duration but lasted only for an instant. The argument, apparently, was based upon an analysis of the concept of being: The nature of being is to be (as Aristotle and Parmenides would have agreed). It was, moreover, *necessary*, as Parmenides and later Democritus and the atomists had held, that being should be, necessary that what exists exist and that what has a given character have that character. But this necessity, the *mutakallimûn* seem to have reasoned, was good only for an instant. For, if the nature of being was to be, that meant to be quite particularly and precisely, to be here, but not there, to be now but not earlier or later. Every predication is necessary, but only for the instant of its truth. Change and motion are illusions, because they violate (as Parmenides had reasoned) the law of contradiction. What is ϕ does not become not- ϕ, but what is ϕ must be so only while it is, and to posit *that* it is now is *not* contradicted by the assertion that it is no later or was not earlier. Indeed the *mutakallimûn* seem to insist that in positing the being of a thing (atom) or any predication regarding it I can mean nor more than that — not its being at any other time than that I mention or its possession of any other characteristic (or the same one at any other time). Hence they call all attributes of things accidents — none implies or is implied by any other. In the *kalâm* scheme, then, each atom *is*, for an instant, and in the next instant is gone. So it becomes necessary, if aggregates such as we perceive exist, that someone, *i.e.* God, outside the perishing realm of being, must assemble their components as and how we observe them to be assembled, and if aggregates persist, as it appears they do, someone, *i.e.* God, with the power to do so, must re-create their elements, the atoms, at each new instant of time in the appropriate configuration and with the appropriate accidents. It follows that there is no intrinsic necessity for things to be as they are or for anything to exist whatever. All apparent continuities between the world observed at one time and the next are expressions of the pure pleasure of God, or as some would say, His grace and custom. Were it not for the continued action of this grace in repeated acts of creation, nothing would exist or seemingly persist in reality or in character at all.

---

[1] See M. Capek, "Leibniz' Thought Prior to the Year 1670: from Atomism to a Geometrical Kinetism," *Revue Internationale de Philosophie* 20 (1966) 249-256.

[2] Capek, p. 254.

Creation, then, continual creation, becomes a necessity, not in the absolute sense of the eternalist philosophers (*e.g.* the Aristotelian neo-Platonists), who argued that if creation is an essential act of God, then God must create continually, *i.e.* eternally, but in the hypothetical sense, that as long as any contingent reality can be observed to exist, *i.e.* anything which does not contain within itself the principles of its own existence, then God's act of creation is necessary *to that existence* and so can be inferred as the cause of that existence *and of the repetition of its like.*

It is in arguing from contingency and endeavouring to place the Biblical concept of the contingency of being on a demonstrative footing that the *mutakallimûn* come to rely upon the particular notion of possibility to which Maimonides calls his reader's attention, and to which Leibniz is alerted in particular. How are we to differentiate a being which contains the principles of its own existence from one which does not? The atom, which they call being, the *mutakallimûn* argue, cannot contain the principles of its own existence, for it is, by definition, no more than what it is. It must be regarded as possible that what now exists will not exist at some later time, and possible that what now exists might never have existed. It is that possibility, indeed, which is expressed in the Biblical and Qur'ânic accounts of creation. The proof of the possibility is the mind's ability to imagine a corresponding state of affairs — to imagine the non-existence of this atom which exists now, or (as the Biblical account of creation calls upon us to do) the non-existence of all atoms (substances) altogether.

If it is possible that an atom or all atoms might not exist, might never have existed, a rationalistic postulate demands that if any does exist, some cause must have determined which of the two possibilities (existence or non-existence) would be realized. This postulate is what Leibniz is to call the principle of sufficient reason. It was the core of the *kalâm* argument *ex contingencia*, and the heart of what Maimonides salvaged from their system.

The need for a determinant, of course, is not confined to the selection of existence over non-existence or of non-existence over existence for those possible things which exist or fail to exist. It extends to the determination of all levels of differentiation, which are all contingent. For anything that exists in any determinate way it is possible to say (as creation myths often do say) that it might have been otherwise (so long as this is imaginable) and so requires a determinant to make it as it is. This determination, the *mutakallimûn* presume, cannot have been internal or intrinsic, or it would not have been imaginable (or possible) for these things to have been otherwise (which, by hypothesis, it is). It is here that the *mutakallimûn* seem to tailor possibility and necessity arbitrarily to the requirements of human imagination. For it does not seem evident that it is impossible for a state of affairs to contain some necessity of its own, of which we are unaware and so take no proper accounting of in imagining as possible events which (contrary to the *kalâm)* might not be possible at all in fact.

The *kalâm* atomic theory is quite helpful to their doctrine of radical contingency. For, since each ultimate entity (atom) is what it is and nothing else and only for the time it is, there can be no implication or any other compelling or impelling relation across the void which separates each (static, of course) atom from its neighbour in space or its successor in time. So there can be no requirement in things' being as they are which has any bearing whatsoever on their state at any other time, and no requirement in this atom's being as it is which has any bearing on the state of any other atom anywhere. Only by God can atoms be aggregated or dispersed, their accidents co-ordinated to the extent of His pleasure and customary grace. The outcome, then, is a thoroughgoing occasionalism in which, in its most consistent form, all events *(i.e.* instantly evanescent states of the universe) are caused immediately by God and none by any other being. My writing is in no causal relation with what you think as you read. Rather, God creates each atom and each accident at its moment, the movement of my hand at the moment of my intention, your understanding at the moment of your reading.

Not only providence and miracles (which "violate the customary or familiar course of events"[3]) become possible on this scheme, but creation becomes a constantly recurrent event — rather than, as Aristotle had branded it, an arbitrary interruption of the lawful course of natural processes. Free will, of course, becomes a problem if God creates each new event — each atom and each accident, when atoms and their accidents are all that exist, apart from God Himself — and Maimonides claims that free will is inconsistent with the strict predestinarianism of the *kalâm* position he describes.[4] Nevertheless, the Mu'tazilites were prepared to make man the author of his own actions through a divinely created power of (quasi-) independent action — although this idea violated the general *kalâm* principle that God was the immediate author of all events. And certain Ash'arites too sought a causal nexus of some kind *(atharun mâ wa . . .ta'alluq)* between the choices of an individual and his acts — or at least a basis for accountability (as distinguished from causal responsibility), in the celebrated doctrine (rooted in the Stoic account of volition) that a man "appropriates" his actions, although they are created by God, "acquires" them, as it is frequently translated, by his acquiescence in them, and thus may be morally accountable without being causally responsible.

Leibniz, however, was untroubled, as our text reveals, about any of the problems human free will may have presented to the *mutakallimûn*. One thing was clear, and that was that these philosophers had preserved divine free will virtually unimpeded. And, as we learn from Leibniz' mature philosophy, human free will in his system can be established if divine free will can be secured.

The atoms of the *mutakallimûn* were paradoxical entities at best — of course, because they had no magnitude. Arranged in an array, A, B, C, it seemed that C must stand adjacent to A if B has no diameter. An atom transposed, or re-created from here to there would travel no faster or slower than another transposed a different distance in the same time, even if the two were arranged in some (apparently) fixed array such as at the periphery and the centre of a millstone. The unobserved gaps in the existence of all particles are relied upon to account for the apparent differences in speed.

---

[3] Ghâzâli, *The Incoherence of the Philosophers*, ed. Bouyges, 2nd ed. Beirut, 1962, p. 192, corresponding to Ibn Rushd, *The Incoherence of the Incoherence*, ed. Bouyges, Beirut, 1930, p. 512 l. 10, tr. S. Van Den Bergh, London, 1954, p. 312.

[4] *Guide* III 17, 4th view; *Guide* I 73, 6th premise.

These and like arguments which were employed against the atomism of the *kalâm* were summed up elegantly by Maimonides in the single statement that *kalâm* atomism rendered Euclidean geometry without application in the natural world.[5] For Leibniz' endeavours to find a rapprochement with some form of atomism the impact of such arguments was clear. Either the atom had magnitude or it had not. But if it had magnitude then it was (at least virtually, geometrically) divisible and so was a compound, a contingent thing, then, in accordance with the arguments of the *kalâm* and Avicenna, a thing whose being as it was was dependent on the ordering and arranging of God (since it might have been otherwise, needed a determinant to make it as it was), not an absolute substance (as Democritus *et al.* had supposed), by which all natural determinations could be explained. Such an "atom" was, as Leibniz put it even more strongly in his mature philosophy, a collocation, hence a being of reason, not a substance at all. Alternatively, if the atom had no size, then it was a paradoxical entity, so long as it remained a body — a body with position but without extension in the individual, although possessed of extension in the aggregate.

The conception of a dimensionless body may have been invaluable to the early forerunners of the *kalâm* in evading some of the geometric paradoxes which had bedevilled Pythagorean atomism — such as the paradoxical incommensurability of the diagonal of a square with its side. For if atoms have magnitude and make up all bodies and there is no void, then the diagonal strut in a physical box must be comprised of an integer number of atoms and so be measurable in rational fractions of the measure of the side — proportioned to the number of atoms in each unit of measure. The proof that it was not led to the suicide of one ancient Pythagorean, but for calmer men, to the conception of continuous quantity and of the void. The idea of dimensionless atoms was apparently another response to the Pythagorean difficulties, retaining the atom but obviating the need for a juxtaposition of continuous with discrete quantity.

Leibniz, however, had the idea of infinitesimals as a means of relating the continuous with the discrete and so re-achieving the ancient Pythagorean dream of rendering measure countable. He did not need to resort to dimensionless atoms, especially when they brought so many problems of their own in train, being incompatible with Euclid. The clear choice for Leibniz was to conclude that the true atomic substance was not a body at all.

The monad as a substance of which being and various characteristics could be predicated truthfully and unequivocally, having "intensive" rather than extensive existence was Leibniz' answer to his atomistic dilemma. Like the "atoms" of the *kalâm*, Leibniz' monads occupy no space, but then they are not bodies; rather, what they are really is what we only imagine bodies to be. They are concrete loci of dynamic characteristics, of energies or accidents, and each is "positioned" with reference to all the rest not in space or by any relational term (they "have no windows") but by the representation in each from its unique perspective of all the other monads in the Universe.

---

[5] *Guide* I 73, premise 3.

Monads are not instantly evanescent like the atoms of the *kalâm*, but they are not necessary beings either, as the atoms of Democritus tend to become. They are created, and their createdness is argued from the contingency of their being. In Leibniz' solution to the problem of modality we can detect the radicalism of the *mutakallimûn* tempered by the naturalism of Maimonides. The modal problem, in this case, is this: each substance or entity is what it is and has the character it has in some sense necessarily. For surely it is contradictory to claim that a thing may be what it is not. But if this notion that a thing must be what it is is pressed too far, change becomes impossible, as in Eleatic or Megarian philosophy. Even in Aristotle's interpretation of the law of identity, logic seems to require the world's eternity. For things, at least generically and specifically, must have the natures that they have, eternally. The *Mutakallimûn* remedy this difficulty by recognizing that the necessity for what is to be what and as it is need not, indeed cannot, be construed to be a necessity for all time. What is, to be sure, must be. But that does not render necessary its being always. What is so must be so, but that again does not, cannot require it always to be so. By atomizing time or, what is the same thing, rendering the atoms evanescent, the *mutakallimûn* meet Aristotle's logical requirement without allowing its influence to overflow into metaphysics. A is A and so must be, to be sure, as long as A exists, but that necessity exerts no impact upon B or any other of A's successors, or even, as it were, on A itself at any other time than that at which 'A is' is true.

The drawback of the *kalâm* approach was that its *ad hoc* metaphysics[6] seemed to render nature as a whole inherently haphazard and God's act in nature not the establishment of a natural order but the arbitrary and capricious sort of spontaneous intervention which would render science either impossible or at best a kind of wishful waiting on the gracious custom or customary grace of God.

Maimonides resolved this problem by pushing back the issue of contingency to the moment of creation. The fabric of science is too coherent, too valuable and too significant as an expression of the divine wisdom in nature

---

[6] *Guide* I 71.

(which he calls an attribute of God)[7] for the theologically motivated concept of continuous creation to be allowed. That concept, moreover, assigns otiose acts to God in so far as it obviates the causal subordination of means to ends in nature. Yet the followers of Aristotle err in imagining it to be a law of necessity that nature always has operated in accordance with the "settled order" we presently discern. It is only relative to that order that it makes sense to say, as the Aristotelians do, that some things we can imagine are still not possible. Substituting reason for imagination as the criterion of possibility, the fact remains that if nothing is given, nothing is precluded beyond the impossibility of logical contradictions. Thus the central (Biblical) insight which the *kalâm* sought to enshrine, the idea of contingency, is recast by Maimonides without reference to their occasionalism as the recognition that things might have been other than as they are. Given the world as it is now there are impossibilities and necessities relative to the actual state of reality, quite independent of the pure necessities and impossibilities of logic. But no rule of logic requires the givenness of that world. Its non-existence is quite conceivable without formal contradiction. Turning dialectically to the Aristotelian philosophers (he does not claim the argument to be demonstrative) Maimonides asks (as Ghâzâli had[8]) what sense there is in referring the world's reality and character to the act of God if it is not conceivable for it to have been other than as it is, indeed if it is not conceivable that the world might never have existed.

This idea of Maimonides, that the world may contain necessities of its own, relative to the system of its interaction while not containing any necessity of existence is the foundation of Leibniz' idea of God's selection of the best of all possible worlds. Many worlds are conceivable which do not violate the laws of logic. The possibility of each such world, however, is delimited further by the "compossibility" of its constituents. The difference God made, which Maimonides sought from the Philosophers, is given by Leibniz as the free selection of the best.

Leibniz, in adopting this approach, remains more faithful to the Parmenidean insight into a logically problematic area regarding change than do the Aristotelians. Where the Aristotelians, following Plato, bifurcate the (logical) universe into changeable and unchangeable realms, only the latter being the object of truly unequivocal discourse, Leibniz adopts the notion that each monad eternally contains in its notion that of all its predicates. Like Spinoza, then, he can say that *sub specie aeternitatis*, whatever is true is always true. In this regard he is grasping something of the most useful to him of what he finds in the *kalâm*. He does not, of course, adopt *interventionistic* occasionalism. But he does hold fast to the idea that whatever can be truly predicated of a subject can be predicated of it necessarily and eternally — not at each instant, as in the *kalâm*, but always. (For the *kalâm*, of course, the now of any atom is its always.) And he achieves this without falling into the trap of rendering all things absolutely necessary. What is necessary is the possession by each subject of its unique set of predicates, *provided* first that the subject concept of each is given. Thus the contingency of each subject is preserved on an existential basis, concomitantly with the necessity of predication.

---

[7] See *Guide* I 53 and my paper; "Maimonides on the Unity of Existence," presented April 4, 1976, at the International Philosophy Symposium, New York City, forthcoming.

[8] *Incoherence of the Philosophers*, Third and Fourth Discussions.

Central among the problems posed to Leibniz by the philosophical tradition and posed pointedly by Spinoza was the problem of intellectualism/voluntarism, a particular articulation of the issue of the nexus between the Absolute and the particular. For the Aristotelians down to Averroes and for their intellectualist followers thereafter it seemed self-evident that God cannot have acted arbitrarily to delimit His manifestation in the world. It followed that the Universe theists know as the manifestation of the divine must be, as Aristotle put it, perfect, infinite, as Spinoza inferred. Nature must contain the reality of all that genuinely can be. Reality and possibility, then, are coextensive. Nature, the cosmos, as Aristotle put it, is divine. Spinoza differs only in pressing the idea to a more rigorous interpretation. Thus when Averroes, for example, argues against the creation of the world, as did Simplicius, Proclus, Plotinus, Aristotle and Parmenides before him, it is not merely the temporal trappings of mythology he is rejecting, it is the idea of the arbitrary confinement of God's act to some subset of the true potentialities of nature. In the language of theological attributes, Averroes and the other intellectualists argued that, God's will, being perfect, must be perfectly congruent with His wisdom, that He would produce all and only those things which His absolute and unfailing wisdom would direct. There could be no arbitrary determination of qualities or existences. And, of course, God's wisdom being eternally perfect, there could be no alteration in its mode of expression. Hence, no creation, obviously, which necessarily involves an arbitrary determination regarding the age of the universe.

Ghâzâli's response, as he put it, was to "turn the tables" on the Philosophers. For their universe was finite spatially and determined in many (seemingly arbitrary ways). Why was it the size it was? Why did it rotate east to west rather than vice versa? Either all these determinations were the expression of divine wisdom and necessity, or somewhere the Philosophers themselves had committed themselves unwittingly to a divine will not reducible to wisdom, to the very arbitrariness they abhorred.

Spinoza, like Averroes, strove to hold his finger in the dyke. Just as Averroes had urged that there must be a reason in God's wisdom why the breadth of the cosmos could not be one fly's wing's breadth greater or smaller than it is and why the heavens revolve in the sense they do, Spinoza argued manfully against the finitude of nature altogether, both against the confinement of extension within finite dimensions and against the idea that nature represents but a subset of the possibilities available to God.

But, as Leibniz could see from the arguments of Maimonides, Spinoza's efforts to exclude the arbitrary from the Divine could be of no avail. For the sole criteria of possibility, as Maimonides concluded and Leibniz in his own philosophy emphatically agreed, were those of logic, not those of imagination, as the *mutakallimûn* would have it, nor yet those of the familiar or settled course of nature, as the Aristotelians presumed. And, by the canons of logic, many things were possible quite contrary to those which are actual, so far as our experience and our settled understanding of nature are concerned. Even asssuming the idea of naturalism, by which the system of nature itself establishes its own necessities and impossibilities, many such systems are possible quite distinct from that which is actual, or at least so Leibniz came to believe in accordance with the prompting of Maimonides. Spinoza, of course, had reached an opposite conclusion, endeavouring to prove a priori the necessity of the laws of motion, for example, and in general to demonstrate the congruence of the requirements of pure necessity (if we but knew it) and the laws of nature (if we but understood them fully). Spinoza's legacy of pure rationalism is bequeathed to Einstein and those modern thinkers who believe it possible to demonstrate a priori, for example, why space must have just three dimensions, and those who seek the fulfilment of the scientific quest in a universal field theory, in which, as Einstein put it, all arbitrary constants, for example, would disappear. To know such a theory would be to fathom divine wisdom in a way that comes as close as human beings can come to knowing as God knows Himself.

But for Leibniz, as a philosophical diplomatist, there was another object no less ennobling in view, the marriage of empiricism with rationalism, intellectualism with voluntarism, determinism with free will and scientific necessity with contingent possibility.

Like Parmenides, Aristotle, Plotinus and others, Leibniz sought a key to the problems of metaphysics in the theory of predication. Parmenides had supposed that all predication (except in identity statements?) involved self contradiction. Aristotle, by uncovering the possibility of equivocation, had showed that this was not so. There was no contradiction in affirming that A was ψ while denying it was ϕ. Yet Aristotle sought and believed that he had found a realm of necessary truths based on the predication of essential attributes. These necessities were categorical, not hypothetical. They involved an absolute requirement for every species, which was ϕ essentially, to be ϕ at all times — even to the point of requiring of all species that they *exist* at all times.

From the Biblical idea of creation the *kalâm* derived the realization that what is ϕ necessarily need not be ϕ at all times in Aristotle's sense. From the *kalâm* Maimonides derived the idea that necessity in nature should be hypothetical, not categorical. He abandoned the atomism of the *kalâm* and the arbitrary and *ad hoc* occasionalistic premise that necessary predication was confined within isolated atomic "substances," but he retained the idea that natural necessities are not absolute (logical) necessities. They are expressions of natural laws which logic allows in principle might have been different. What Leibniz derives from this is that it is possible for *all* predications to be necessary (as in his metaphysics he makes them) and yet not categorically so — necessary within the framework of the existing natural order, which logic allows in principle might have been different. Predications may be necessary; but existential statements, except for that about God, never are. And predications, ontologically, are invariably secondary to existential statements. It is in the relationship of this natural (relative) necessity to the categorical (absolute) necessity of logic that Leibniz finds room for the operation of free will.

God is free, for Leibniz, to choose among genuine alternatives — logically possible alternative worlds. The divine nature inclines Him morally to choose the best of these for actual existence. But this does not imply (as critics of the notion suggest) that for God there are no real alternatives. On the contrary, there is no constraint on the will of God other than its own nature. In the language of Leibnizian mathematics, God's will pursues the good with a probability asymptotically approaching one hundred percent, but its outcome is never determined, *i.e.* categorically necessary, for that would require the presence of formal impossibilities in every world other than that which actually exists. Of course it might be said that God's nature and so His goodness are necessary categorically and that these may be incompatible with certain alternative worlds; specifically, for example, with those which are less good than others. But this is not a formal but a moral incompatibility. God's goodness does not render those worlds impossible but only explains why they are not actual. Thus moral inclination is not incompatible with freedom, and the same can be said with regard to human free will (insofar as it is directed by moral inclination). For man, in God's image, apparently has the power to act in accordance with moral inclination rather than simply following a programmatic nature like one of Leibniz' clockwork music boxes. The world then and everything in it has a determinate nature, and this Leibniz can affirm in a sense far less qualified than Aristotle ever employed on this subject. But that determinacy no more implies the mastery of all things by necessity than it implies the eternity of all species. For the necessities of nature are hypothetical, not categorical necessities, as Leibniz could appreciate clearly through his study of Maimonides' *Guide to the Perplexed*.

G. W. Leibniz

*Observations on Rabbi Moses Maimonides' book entitled The Teacher of the Perplexed.**

This book of Rabbi Moses Maimonides entitled *The Teacher of the Perplexed* seems quite remarkable and more philosophical than I had supposed. It deserves careful reading. The author was distinguished in philosophy, mathematics, and the art of medicine as well as in his understanding of sacred scripture. I read the translation of Buxtorf, Basle, 1629. quarto.

He promises to reveal the true sense of the parables of the law. He had feared to write, he says, since "These are things of which none of our people in this captivity has written until now." But his hesitations were overcome by two considerations: "Now is the time for the work of the Lord, for they have set thy law at naught" (Ps. 119:126), and the dictum of the sages "Let all thy works be for the glory of God." [Avot 2:17].**

Part I, Chapt. 26. Corporeal terms are assigned to God so that it may be understood that He is real. The commonalty does not comprehend spiritual beings. Motion is ascribed to him because men understand any perfection as a capability of moving.

Ch. 27. Onkelos, Akibba: Perfect is he who in divine things goes in and comes out in peace, not exhausting his soul with inquiry into things which it has not the power to grasp. It is harmful to go into things which are too elevated.

Ch. 34. One must begin with logic, then verge into mathematics. After that it is fitting to turn to nature and finally to matters of divinity.

* Ed. in Latin with French translation by A. Foucher de Careil in *Leibniz, La Philosophie Juive et la Cabale*, Paris, 1861; (repr. 1969, photomechanically).

** See *Moreh* Intro. *ad fin.* ed. Munk, 2nd ed. Jerusalem, pp. 10-11; tr. Pines, p. 16.

ibid. Were it not that by kabbalah (tradition) we have been accorded a certain knowledge, and were we not guided by examples and similitudes, but if it were left to us to grasp everything from the essential definitions of things and to believe only what was proved, then the majority of men would perish before they knew whether God exists or not. One who speculates without some guiding principles is like those who fall into a ditch while walking and had better never stirred.

Ch. 36. One who believes God to be a body is worse than the idolators — who clearly do not suppose idols to be God, but wish them to serve as some sort of means toward God.

Ch. 46. Corporeal traits are ascribed to God as the people say that the perfections of all things exist in him. Does this land have any king? By all means. What proof do you offer? You can say: Since this money changer, whom you see to be a frail man of weak body with that great quantity of gold before him, while that other, a hearty man of great bulk but destitute, stands before him begging a single penny in charity, not only does not give it to him but actually berates him and drives him away with hostile words. Surely, were it not for the fear of the king, the poor man would kill the money changer, thrust him aside, and make off with all his substance.

What the prophets attribute to God are — motions, to show that he is alive, perceptions, to show that he has knowledge, touch, to teach that he acts, words, to convey that he inspires intelligence.

Ch. 47. To God is ascribed intellect, *bun*, not imagination, *damah*.*

Ch. 51. God is absolutely simplex, having neither form, nor attribute, nor accident.

Ch. 52. There is no more basis for comparison between God and his creatures than there can be between understanding and sweetness — *sc.*, under the genus of quality.

Ch. 53. If anyone were to describe fire as bleaching, blackening, cooking and consuming, congealing and dissolving and were therefore to suppose that there were diverse things (or powers) present in the fire, he would be mistaken. In the same way there are not diverse principles or things in God.

Ch. 54. The thirteen attributes of God, revealed to Moses: *Exodus* 34:67.

Ch. 57. God exists, but not through existence; lives, but not through life; knows, but not through knowledge.

Ch. 59. A progression of errors and levels of understanding: One holds God to be corporeal, one doubts, one knows him to be incorporeal, one goes further, knowing that not only corporeality but all passion must be removed from God: Whoever is able demonstrably to remove more from

---

* A distinction to which Leibniz calls attention at the close of his MS, and in I 71, 73.10, III 15.

God has advanced further in the knowledge of him.

Ch. 60. The negative attributes should be multiplied; thus: something is not an accident, not an animal nor a mineral, nor a plant, nor a natural composite, nor a flat, rounded or elongated thing.

Ch. 62. Names: the 12-letter tetragrammaton, and again the 42-letter.*

Ch. 68. God is the intelligence, the intelligent, and the intelligible, and these three in him are one:** Intelligence as it exists in act is identical with its objects, say the abstract form of a tree, although intelligence *in potentia* and the tree as a potential object of intelligence are distinct things. Since God, however, is always intelligent in act, without any potentiality, in respect of all intelligibles, the subject and the object of intelligence in him are always the same.

Ch. 69. God is the ultimate form inasmuch as he gives reality to what is. In the same way he is the goal of all goals and the efficient cause of all efficient causes.

Ch. 70. Certain of the sect of the *loquentes* reached that degree of dementia that they dared to assert that even if God did not exist it would not follow that all would revert to nothingness, as the destruction of the efficient cause would not destroy the effect. They were unaware, apparently, that God is also the formal and final cause of the world.

Ch. 71. The *loquentes* tried to accommodate philosophy to religion; but on the whole they only confounded imagination with intelligence. They desired to demonstrate the createdness of the world philosophically, which Maimonides denies to be possible.

Ch. 72. The world is one individual, like Reuben or Simeon. God is the life of the world.

Ch. 73. Principles of the *loquentes* which reached the Israelites from the Greeks and Aramaeans [*sc.* the Syriac theologians.]

1st A proposition affirming the existence of an isolated substance. [atom]
2nd That there is a vacuum.
3rd That time is composed of instants.
4th That substances cannot exist without a number of accidents.
5th That isolated substances complete their existence and substantiality in their accidents.
6th That no accident endures for two moments (or instants).
7th That *habitus* and *privatio* follow the same principle; both are accidents whose existence requires an efficient cause.

---

* Maimonides refutes the Kabbalistic pretensions in behalf of alleged many-lettered names of God. Leibniz' interest may have been aroused through encounters with such kabbalistic names in mystical writings with which he was familiar such as those of the Rosicrucians.

** Cf. Aristotle, *De Anima* III 4, 429a 16, 430a 3; 5, 430a 20.

8th That there is nothing in the universe besides substances and accidents; and that natural forms are also accidents.

9th Accidents do not bear other accidents and are not to be predicated of one another.

10th That the possible is not delimited by the conformance of its imagined notion with this universe (that is, the possible is not what is in keeping with the order of nature but what cannot be ruled unimaginable).

11th That there is no infinite — neither actual nor accidental nor potential infinity, but that all sorts of infinity are specious.

12th That the senses often err and fall short and so afford no basis on which demonstrations may be founded.

As to 1, they compose everything out of atoms which have no magnitude. Thus generation for them is simply aggregation, and they would have it that God either creates or annihilates these atoms at each interval.

2. From the atoms, the void follows. Having gone thus far they could not go back when it came to time.

3. but composed it of instants. From this it followed that one motion could not be swifter than another. But they said that in that motion which is called slower there interrupt a greater number of rests — else a motion would necessarily be swifter in those parts which were further removed from the centre [*sc*. of a turning wheel.].

To *4*. In proposition 4 they would have it that if the accident of life comes not to be present in a thing, then some other accident, namely, the privation of life, or death, enters in to it.

To *5*. They deem life to subsist in every atom of a living body, although many things are otherwise in the whole [*sc*. than they are in the particle]. For what is green when whole [an emerald in Maimonides' example] is white when its configuration is disturbed. (In this doctrine of the *loquentes* they do not cleave to the teaching of Democritus.)

To *6*. They would have it that God creates an accident like that which preceded it, but they do not believe the nature of a thing to be such that it will have such accidents. Rather God creates the colour in the garment at the very moment that the cloth is dipped; men in nowise move the pen, but the motion of the pen is an accident created in it by God. God, however, by custom, continues to create this accident so long as the hand is in motion. In fact, plainly, there is no true action or cause of the pen's motion in the hand of itself, nor can any body be found which has any power of action. The true ultimate cause is God.

To *8*. They suppose the substance of all bodies to be the same, and that they differ as hot and cold, that is, as real accidents, only in their accidents.

To *9.* They suppose that any accident can subsist in any substance.

To *10.* All things could be other than as they are, there being no reason why a thing should be so rather than otherwise. All things are as they are simply by custom. Thus (presumably) fire could be cold and move downward. At the same time they allow that two contraries cannot be at the same time in the same subject. They hold as impossible what cannot be constructed or conceived. And this is right, but the conception ought not to be left to the imagination but to the intellect.

Ch. 74. To prove the origination of the world the method to follow is that of determination. For since a thing has a certain measure and it is possible for it to have another (and so with other accidents) there should be a determiner who selects among the possibilities. And in this way the world is founded. There is also the method of preponderance, one branch of the previous method [*sc.* of the *kalâm*]. For surely there must have been a reason why the world's existence took preponderance over its non-existence.

What survives of Reuben is identical with what survives of Simeon (the active intellect) — also Abunazar [*i.e.* Abu Nasr al-Farabi] in his book *Of Entities*; for the respects in which this proposition must be modified.

Maimonides' *Teacher of the Perplexed*

Part II

Prolegomena

Having refuted at the close of the preceding Part the *loquentes* who strove to demonstrate the origination of the world, the author says that he will present proofs of God from the Philosophers, letting pass and, as it were, conceding to them the eternity of the world. These proofs he will present, however, as following from the propositions of the Philosophers:

1. It is false that there exists an infinite magnitude.

2. The simultaneous existence of an infinite number of things having magnitude is false.

3. The existence of an infinite sequence of causes and effects, even if these do not have magnitude and measure is false.

4. Change tákes place under four of the categories, under that of substance as generation and corruption, under that of quantity as growth and diminution, under that of quality as alteration, and under the category of place as locomotion.

5. Movement is a change or a passage from potency to act.

6. Of local motions some are per se, others are per accidens, some forced, some partial. Essential [per se] motion is that of a body; accidental, that which enters into a body (and moves with that body's motion); forced, as when a stone is thrown upward; partial, as the motion of a nail in a ship.

7. Whatever changes is divisible; whatever is moveable is divisible and is a body. And whatever is not divisible does not move and is not a body.

8. Whatever moves per accidens must at some time come to rest.

9. Every moving body is put in motion.

10. Whatever things enter into a body either as accidents or as natural forms are powers within a body.

11. Whatever subsists in a body, is either divisible with the division of the body, as colour, or not divisible with such division, as the soul.

[12. -omitted by Leibniz: that any force distributed through a body is finite because the body is finite.]

13. No change is continuous except local motion of the circular sort.

14. Local motion is prior by nature to the other kinds.

15. Time and motion go together. There is no motion without time nor can time be conceived without motion. What has no motion does not fall within time.

16. Nothing which is not a body can be understood to have number. But if it is a power in a body — such can be counted as individual powers since they can be numbered with their matters or substrates.

17. Whatever is moved has a mover, either external, as the stone is moved by the hand, or internal, as the body by the soul.

18. What proceeds from potency to act is led by something else external to it.

19. Whatever has a cause for its existence is in terms of its own essence a possible existent.*

20. Whatever is in terms of its own essence a necessary existent has no cause of its existence.

21. Insofar as anything is composed of two things that composition is a cause of its existence, and consequently, to that extent, such a substance does not have necessary existence.

22. Every body necessarily is composed of two things and has certain accidents.

23. Whatever is potential must at some time not exist in act.

24. Whatever is potential is material, for the possible must always be in matter.

25. The principles of a particular composite substance are matter and

---

* Propositions 19, 20 and 21 are drawn not from Aristotle, like the rest, but from Avicenna, for it was the Avicennan tradition that Maimonides wished to discuss and criticize.

form, and these cannot exist without an efficient cause or mover [to bring about their composition].

In regard to these twenty-five: These propositions were demonstrated by Aristotle in his *Akroasis* [*i.e.* the *Physics*, traditionally called *Peri tes physikes akroaseos*] and in his *Metaphysics*.

26. According to Aristotle time and motion are eternal, always existing *in actu*. Whence it follows that there is some body moved with an eternal motion. This proposition, it seems, was not known to Aristotle as a demonstrated truth but rather was viewed by him as probable — but by his interpreters as necessary and by the *loquentes* as impossible. (It seems in general that by the *'loquentes*' he means adversaries of Aristotle.) Even though there is a "prime mover" or first efficient cause in animals, still, the end sought and the object of the desire to procure what is salutary, indeed the very source of the impulse toward movement, are outside the animal.

Ch. 1. Other arguments from Aristotle striving to prove the existence of God.

Ch. 4. The celestial sphere is intelligent and alive, moved by God inasmuch as it desires to become like him. God does not act through physical contact.

Ch. 13. Accidents of accidents are difficult for the mind — thus time.

Ch. 14. Aristotle held rightly that all the works of nature have as much perfection as they can have.

Ch. 17. If one who had never learned how animals are engendered were told by someone else that infants are in the womb, he would think of numerous demonstrations to the contrary, to the effect that in such a place they could not eat, drink or breathe.

Ch. 20. Aristotle would have it that natural events conjoin by their own natures, not accidentally, for such events are unvarying and repeated.*

Ch. 23. In deciding among the difficulties which follow from one position and those which follow from its alternative, to determine which position is less doubtful and which is preferable, one must take into account not just the number of difficulties but also the magnitude of the absurdity they involve.

Ch. 24. Abubachar son of Alzaig [that is, Abû Bakr b. al-Sâ'ig Ibn Bâjjah, the Avempace of the Latins] constructed a system [*sc.* of astronomy] based entirely on eccentric circles without any epicycles. But the eccentric is no less a departure from Aristotle [*i.e.* from his notion that the "motion of the spheres" must be that of circular revolution] than is the epicycle. (What Aristotle wrote on these matters is not sustainable. L.)

---

* What Maimonides understood Aristotle to have said (*Physics* II 5) was that natural events could not have come about as they do by chance, for what occurs by nature is as it is either always or for the most part.

Ch. 27. It is an article of faith to believe in the creation of the world but not to believe in its destruction. The souls of the holy are never deprived; some think that even the bodies enjoy perpetual pleasure in the garden of Eden.

Ch. 30. Sammael, that is Satan, whom they would have to be mounted on a serpent the size of a camel when he deceived Eve. Remarkably the seed of the serpent vanquishes the seed of Eve by the way of the heel, and contrariwise, they vanquish it by way of the head. The head is the Israelites; the heel, the idolatrous nations.

Ch. 41. Laws which regard only the matter of Good Civil Order *(Eutaxia)* are human. Those which look to the perfection of the Mind, and specifically to the true notion of God, of angels and of the entirety of nature are divine. The false prophets were devoted generally to the erotic *(Jeremiah* 29:22-23*).

Ch. 42. Visions are like dreams — thus the wrestling of Jacob. Hagar the Egyptian and Manoah and his wife were visited only by a "daughter of a voice." [Hebrew: *bat kol*].

Maimonides Part III

Preface: A twofold treatise: one work on *Bereshit* [*Genesis*] or creation, that is common theology; another on *Merkavah*, that is the Chariot, *sc.* of Ezekiel, or mystical theology. After having grasped the inner mysteries of this, through reading and contemplation, he says that he will write in this book of the vision of Ezekiel in such a fashion that one who hears his exposition will suppose that what he has said is no different from what Scripture already says, or that he has only translated the same terms into another tongue. But if one for whose sake the book was written considers these words, they will appear as clearly as they do to myself [*i.e.* to Maimonides].

Chapt. 2. Ezekiel suggests that by living creatures he means celestial bodies. Under animate beings are those with bodies conjoined to the earth and those which revolve about the earth (verse 15). Having four faces — the elements. Their wheels were straight and they moved of themselves, as do animated beings. Above these is the expanse (of heaven) and above that expanse is the throne — the throne of glory being for the Jews, the empyrean.

Ch. 10. God does not produce evil as such; evils are privations.

---

* quoted at the end of ch. 40.

Ch. 11. The evils of men are from ignorance or privation of knowledge.

Ch. 12. It is false that there are more evils in the world than goods as someone taught [*sc.* Muhammad b. Zakariyâ' al-Râzî*] who represented human life to be so filled with evils that it must be some sort of punishment — which is contrary to the benignity of God. These weak minded ones suppose all nature to exist on their account,** and when anything chances to occur to their disadvantage they suppose the whole world to be evil. They marvel that one who wears bad clothing should contract leprosy or that one who over-indulges in venery should lose his eyesight. Wiser is Galen in book II of *De Usu Partium*: Do not set your heart on the vain hope that out of menstrual blood and semen it is possible for an immortal animal to be engendered, free of suffering, perpetually self-moving and glowing splendid as the sun.

Most men are born whole and hale. Earthquakes are rare. Evils come to men from one another, or most often from themselves. In seeking unnecessary things, we make it difficult for ourselves to obtain even necessities, for our powers fall short in the quest for necessaries when they are worn out in seeking after superfluities. Necessities are more copious in proportion to the need — thus air and water. One who has many vials of balm or precious vessels has added nothing of value to his substance but only specious vanity — as with the manna *(Exodus* 16:18): He who gathered more had no excess and he who gathered less had no lack; severally they gathered what they could consume.

Ch. 13. The ultimate goal of species seemed to Aristotle to be their continued generation and corruption. He [Maimonides] does not allow it to be said that all things are for the sake of man and man that he might worship God.*** For this worship adds nothing to God. Worship is not for his good but for our own. Particular things exist for their own sakes, not for the sake of any other. Each is a good in itself. When it is said that the heavenly lights were created that they might give light, the sense is not that this is their end but rather that God willed to create luminous bodies. The sages say: The Law speaks according to the language of the sons of men.

Ch. 15. The Mutazilite sect believed that an accident could subsist by God's will outside any substance, but he [Maimonides] says that it was their reverence and devotion in certain legal (religious) matters which forced them to adopt this posture. What is possible is not what can be imagined but what can be understood.

---

* See my article "The Epicurean Ethic of . . . Razi" *Studia Islamica* 34 (1971) pp. 5-26.

** The reference is to Saadya here as well as Razi: note the use of the plural; *cf.* my article, "Saadiah Gaon on the Human Condition," *The Jewish Quarterly Review*, n.s. 67, pp. 23-29.

*** *Cf.* Spinoza *Ethics* I Appendix.

Ch. 16. On account of the disorder of things and the ills affecting the good, some say that God does not know all things, others that He is incapable, others that He does not choose to intervene. This last error is to be found in Alexander of Ashrodisias' book *On Governance or Providence*. Such is the opinion of Alexander himself!

Ch. 17. For Aristotle Providence is above the moon, where there is sempeternity. Below many things occur *per accidens*. Thus that alone is providential which transpires *per se*.

The contrary view is held among the Ishmaelites by the Ash'arite sect, that all things occur *per se* and by fixed determination, each leaf falling at the particular decree of God. But, if so, it follows that nothing is in the power of man, that all things which we call possible are either necessary or impossible, and that what will at no time take place (speaking absolutely and from the viewpoint of God) is not possible. It follows too that divine acts have no object* and even that it is possible for God to chastise one who has not sinned.

Another contrasting view is that man does have some power of action and that no one is punished who has lived well. This is the position of the Mu'tazilite sect. They, however, do not assign absolute power to God. They believe that God knows the fall of each individual leaf and oversees all for the best and that men are born imperfect. But we, they say, do not grasp this divine wisdom and beneficence. The author disapproves. They say that when a good man is killed, it is that he may enjoy a greater reward in the hereafter. (These Mu'tazilites, then, are veritable Christians!) They would have it that even the innocent rat slain by the cat will be given his reward.

No one, the author says, should castigate these thinkers. They were compelled to the position they adopted by a great apparent necessity [*sc.* in their desire to justify God].

Our view, however, and that of our Law is that a man has free will. There is no evil in God. The discrimination among men is based upon the merits of their actions. Certain of our number have held the doctrine of "afflictions of love," but no such view is found in the Law. That is simply the doctrine of the Mu'tazilite sect. False, too, is the notion of recompense for irrational animals. The author deems that God looks after human affairs; but, in regard to leaves and living beings other than man, he embraces the opinion of Aristotle. (He seems to follow this opinion, in regard to men but says only the following:) that there is no providence over animals except in relation to the species. Habakkuk, the prophet, seeing the tyranny of Nebuchadnezzar, had it that men seemed abandoned like fish. *Habakkuk*

---

* Revelation, for example, Maimonides argues, would be of no avail if man's fate were predetermined.

14. (And so Jerome in his commentary to that book.*)

Ch. 18. Providence is not the same towards all men but is in accordance with their wisdom and piety.

Ch. 20. God's knowledge does not rob future events of their possibility.

Ch. 21. On the difference between God's knowledge and ours. Whatever we know, we know through the examination and consideration of things. But all things themselves follow God's knowledge and are just as it orders and disposes them to be.

Ch. 29. For the Sabaeans the stars were gods. Their books, which were extant among the Jews in the time of Maimonides, in Arabic translation, said that the stars were divine and that the sun was the great God. The remaining five planets were gods, but the two luminaries were the greater gods and the sun ruled both the superior and the inferior worlds. Their stories about Abraham and Adam. The Turks and the Hindus are among the remnants of the Sabaean nation, which race once filled the whole earth.** All Sabaeans believed in the pre-eternity of the world, because the heavens for them were God. The Sabaeans erected images and shrines to the stars and offered sacrifices to the sun. The author says that the reasons for many of the laws become comprehensible through an understanding of the faith, rites and worship of the Sabaeans. Among the most famous of these works is the *Agriculture of the Egyptians*, which was translated by Ibn Wahashiya, the book *Haistamchus*, attributed to Aristotle, but falsely, the book *Hattel esmaoth*, that is, On Images, the book *Tamtam*, the book *Hasscharabh,* the book *Maalot haggalgal vehazzuroth haolot becol maaleh* or on the progressions of the celestial sphere and the ascendent constellations at each stage of its progress, and a great book on the particularities and customs of the Sabaean law — all once translated into Arabic but lost.

Ch. 30. The Sabaeans ascribed the fertility of the earth to the stars. They celebrated cattle and beasts of burden on account of the great usefulness they afford in agriculture. In the book *On the Agriculture of the Egyptians* they say that the ancients prescribed festal days and the playing of musical instruments before these images.

Ch. 31. On the magical arts and the ways of Amorites, which are branches of the art of magic. The Sabaeans left views as to the grafting of one tree onto another, which the Law forbids on account of the idolatrous beliefs and detestable, unnatural lusts with which they were connected.

Their rites and ceremonies related to the five planets, for they believed that in these inhered the powers most useful in agriculture, and by means of this notion they attracted men to the star cult.

---

* I.e. in regard to the gloss by which Habakkuk's simile is employed to suggest a presumption on his part that irrational animals are not subject to providence, at least not as individuals.

** Maimonides uses the term Sabaeans generically to designate pagans; nations who had not adopted a monotheistic faith were thus Sabaeans.

Ch. 46. Certain Sabaeans worshipped demons and believed them to have the form of goats.

Ch. 47. The Sabaeans engaged in onerous labours in connection with [the idea of] pollution.

[At the end of the MS Leibniz comments:]

Maimonides clearly distinguishes throughout between reason and imagination and teaches that the former, not the latter must judge as to the matter of possibility.